

TOTAL ORGANIC CARBON BY HIGH-TEMPERATURE COMBUSTION METHOD SM 5310 B-2000 (2011)**ADDITIONAL QC REQUIREMENTS FOR THIS METHOD:** *Certified or Accredited laboratories using this method are assessed to applicable requirements of SM 1020 and SM 5020.*

Facility Name: _____ VELAP ID _____

Assessor Name: _____ Analyst Name: _____ Inspection Date _____

Relevant Aspect of Standards**Method
Reference****Y****N****N/A****Comments**

Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____

Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____

1) Were Non-Potable Water samples (which could not be analyzed within 15 minutes) preserved to pH < 2 (with HCl, H₂SO₄, or H₃PO₄) and stored at ≤6°C for not longer than 28 days?40 CFR 136
Table 1I

2) Were samples collected and stored in glass, polythethylene, or fluoropolymer bottles?

40 CFR 136
Table 1I

3) Were samples stored protected from sunlight?

5310 B.1.d

4) Were inorganic carbon sources removed from samples by acidification and sparging, **or** was inorganic carbon measured in samples, so that it could be subtracted from TOC?

5310 B 1 a

5) If inorganic carbon sources were removed by sparging, was organic carbon reported as "total nonpurgeable organic carbon"?

5310 B.4.b

6) When only DOC was determined, were filtration blanks analyzed to check for contamination imparted by filters?

5310 B.4.b

7) Did blanks with each set demonstrate that bottles and TFE septa cleaning regimens were acceptable?

5310 B.1.d

8) Were manufacturer's instructions followed for analyzer assembly, testing, calibration, and operation?

5310 B.4.a

9) When samples were homogenized, was a homogenizing blank consisting of reagent water carried through homogenization?

5310 B 4.b

10) Was carrier gas purified air that was CO₂-free and contained less than 1 ppm hydrocarbon?

5310 B 3 e

11) Was purging gas free of CO₂ and hydrocarbons?

5310 B 3 f

Notes/Comments:

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Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
12) Was the efficiency of inorganic carbon removal checked for each sample matrix by splitting a sample into two portions and adding inorganic carbon to one portion? <i>"The TOC values should agree; if they do not, adjust sample container, sample volume, pH, purge gas flow rate, and purge time to obtain complete removal of inorganic carbon."</i>	5310 B.4.b				
13) Were instrument injections repeated until consecutive measurements agreed within $\pm 10\%$?	5310 B.4.c				
14) Were procedural blank values subtracted from the standard and sample values?	5310 B.5				
15) After every tenth analysis, were a blank and laboratory control sample (prepared from a source other than calibration) measured? <i>"Alternatively, periodically make known additions to samples to ensure recovery from unknown matrices."</i>	5310 B.6				
Notes/Comments:					